

6. World nuclear forces

Overview

At the start of 2013 eight states possessed approximately 4400 operational nuclear weapons. Nearly 2000 of these are kept in a state of high operational alert. If all nuclear warheads are counted—operational warheads, spares, those in both active and inactive storage, and intact warheads scheduled for dismantlement—the United States, Russia, the United Kingdom, France, China, India, Pakistan and Israel together possess a total of approximately 17 270 nuclear weapons (see table 6.1).

All five legally recognized nuclear weapon states, as defined by the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT)—China, France, Russia, the UK and the USA—appear determined to remain nuclear powers for the indefinite future. Russia and the USA have major modernization programmes under way for nuclear delivery systems, warheads and production facilities (see sections I and II in this chapter). At the same time, they continue to reduce their nuclear forces through the implementation of the bilateral 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) and through unilateral force reductions. Since the nuclear weapon arsenals of Russia and the USA are by far the largest, one result has been that the total number of nuclear weapons in the world has been declining. The nuclear arsenals of the other three legally recognized nuclear weapon states are considerably smaller, but all three states are either deploying new weapon systems or have announced their intention to do so (see sections III–IV). Of the five legally recognized nuclear weapon states, China is the only one that appears to be expanding the size of its nuclear arsenal.

The availability of reliable information about the nuclear weapon states' arsenals varies considerably. France, the UK and the USA have recently disclosed important information about their nuclear capabilities. In contrast, transparency in Russia has decreased as a result of its decision not to publicly release detailed data about its strategic nuclear forces under New START, even though it shares the information with the USA. China remains highly non-transparent as part of its long-standing deterrence strategy, and little information is publicly available about its nuclear forces and weapon production complex.

Reliable information on the operational status of the nuclear arsenals and capabilities of the three states that have never been party to the NPT—India, Israel and Pakistan—is especially difficult to find. In the absence of official

Table 6.1. World nuclear forces, January 2013

All figures are approximate. The estimates presented here on nuclear forces are based on public information and contain some uncertainties, as reflected in the notes to tables 6.1–6.9.

Country	Year of first nuclear test	Deployed warheads ^a	Other warheads ^b	Total inventory
United States	1945	2 150 ^c	5 550	~7 700 ^d
Russia	1949	~1 800	6 700 ^e	~8 500 ^f
United Kingdom	1952	160	65	225
France	1960	~290	~10	~300
China	1964	–	~250	~250
India	1974	–	90–110	90–110
Pakistan	1998	–	100–120	100–120
Israel	..	–	~80	~80
North Korea	2006	6–8?
Total		~4 400	~12 865	~17 270

^a ‘Deployed’ means warheads placed on missiles or located on bases with operational forces.

^b These are warheads in reserve, awaiting dismantlement or that require some preparation (e.g. assembly or loading on launchers) before they become fully operationally available.

^c In addition to strategic warheads, this figure includes nearly 200 non-strategic (tactical) nuclear weapons deployed in Europe.

^d This figure includes the US Department of Defense nuclear stockpile of c. 4650 warheads and another c. 3000 retired warheads that are awaiting dismantlement.

^e This figure includes c. 700 warheads for nuclear-powered ballistic missile submarines (SSBNs) in overhaul and bombers, 2000 non-strategic nuclear weapons for use by short-range naval, air force and air defence forces, and c. 4000 retired warheads awaiting dismantlement.

^f This includes a military stockpile of c. 4500 nuclear warheads and another 4000 retired warheads await dismantlement.

declarations, the available information is often contradictory, incorrect or exaggerated. India and Pakistan are both expanding their nuclear weapon stockpiles as well as their missile delivery capabilities, while Israel appears to be waiting to see how the situation in Iran develops (see sections VI–VIII). A ninth state—the Democratic People’s Republic of Korea (DPRK, North Korea)—has demonstrated a military nuclear capability. However, there is no public information to verify that it possesses operational nuclear weapons (see section IX).

The raw material for nuclear weapons is fissile material, either highly enriched uranium (HEU) or separated plutonium. The five nuclear weapon states have produced both HEU and plutonium. India, Israel and North Korea have produced mainly plutonium, and Pakistan mainly HEU for weapons. All states with a civilian nuclear industry are capable of producing fissile materials (see section X).